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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,861	10/29/2003	Hiroshi Makamura	244682US2S	5717
22850	7590	04/21/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, NAM THANH	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,861

Applicant(s)

MAKAMURA ET AL.

Examiner

Nam T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 3/7/06 has been entered.

Claims 1-14 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in—(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-8 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by the admitted prior art.

Regarding claim 1, The admitted prior art (figures 1 and 2, and pages 2-9 of the instant application) disclose a plurality of memory cell arrays (Array 0, Array1, Array 2, Array 3 of the instant application) having of a plurality of memory cells or memory cell units (the cell array is inherently includes a plurality of memory cells and units or a group of cells) which includes a plurality of memory cells, arranged in a matrix, wherein

the plurality of memory cell arrays (Array 0, Array1) are located independently of each other (as shown in the admitted prior art in figure 2 of the instant application) and have a plurality of cell array groups each of which have two or more memory cell arrays, (in the instant case, the upper Array 0 and the lower Array0 would be one cell array group and the upper Array1 and the lower array 1 would be another cell array group) and a first Pass/Fail signal (see page 5, lines 11-15 of the instant application) indicative of success or failure of an operation is outputted in accordance with each cell array group (see page 5, lines 25-26 and page 6, lines 1-15 of the instant application)

Regarding claims 2 and 3, a parallel operation with respect to memory cells in two or more of the plurality of cell array groups (see page 9, lines 1-4).

Regarding claim 4, the operation recited in page 5, lines 10-15 is a program operation or an erasing operation.

Regarding claim 5, the first Pass/Fail signal is a Pass/Fail signal indicating whether the operation has attained success with respect to all of selected memory cells or not (see page 5, lines 27-28 and page)

Regarding claim 6, a second Pass/Fail signal of an entire chip (EEPROM chip) is also outputted when the first Pass/Fail signal is outputted (see page 6).

Regarding claim 7, a Pass/Fail signal indicating whether the operation has attained success with respect to one memory cell array selected from the two or more memory cell arrays in each of the cell array groups or not (see page 8, lines 7-11 and table 1 in page 6 and table 2 in page 7).

Regarding claim 8, the first Pass/Fail signal is outputted after a first command is inputted (see page 8, lines 7-21 and table 1 in page 6 and table 2 in page 7).

Regarding claim 12 and 13, line 11 in page 5 discloses the memory is EEPROM and the memory cell unit is a NAND cell type.

Regarding claim 14, plural word lines connected to respective plural source gates and control gates of the plurality of memory cell arrays (see page 2, lines 10-20).

Allowable Subject Matter

4. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

There is no teaching or suggestion in the prior art to:

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“a third Pass/Fail signal which is different from the first Pass/Fail signal is outputted after a second command is inputted” as claimed in the dependent claim 9; or

“a forth Pass/Fail signal is outputted with respect to each of the cell arrays included in an entire chip after a third command is input” as claimed in the dependent claim 10.

Response to Response

5. The applicant argues that the “upper” array 0 “ and “lower” array 0 are the same Array i.e. Array 0 is a group of only one memory cell array. The Examiner disagrees. It is well recognized in the memory art (and by the definition in the American Heritage Dictionary), an array is just an arrangement of quantities in row and columns, as in a matrix, and a memory cell array is nothing than an arrangement of memory cells arranged in rows and columns, then the upper array by itself is one memory cells array (because there are a plurality of memory cells arranged in columns and rows) and the lower array is another memory cell array (because there are a plurality of memory cells arranged in rows and columns). Therefore, the upper array 0 and the lower array 0 are two different arrays and these two arrays form a memory cell array group that comprises two memory cell arrays, and a pass/fail signal indicative of success of failure of an operation is outputted in accordance with each cell array group (as admitted by the applicant that upper and lower array 0 have the same pass/fail signal. See the specification, pages 2-8).

Therefore, the applicant arguments are not persuasive for the reasons set forth above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam T. Nguyen whose telephone number is (571) 272-1878. The examiner can normally be reached on 8 am to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nam T Nguyen
Examiner
Art Unit 2824

4/6/06



4/13/06

TUAN T. NGUYEN
PRIMARY EXAMINER